Dimension GS-3012/GS-3012F

12-port Managed Layer 2 Gigabit Ethernet Switch

Recommended for

- High-performance Gigabit backbone applications for small networks
- Businesses or campuses needing high-performance data center connectivity
- ISPs or Telcos looking for aggregation switch with sophisticated QoS and traffic management capability
- ISP or Telcos looking for edge switch for Metro Area Network with access control list and security functionality

Features

Standard Compliance

- IEEE 802.3 10Base-T Ethernet
- IEEE 802.3u 100 Base-Tx Ethernet
- IEEE 802.ab 1000 Base-T Ethernet
- IEEE 802.3z
- IEEE 802.3x Flow control
- IEEE 802.1d Spanning tree protocol
- IEEE 802.1w Rapid Spanning tree protocol
- IEEE 802.1p Class of service, priority protocols
- IEEE 802.1Q VLAN tagging
- IEEE 802.1x
- IEEE 802.3ad Port aggregation

Performance

- 24Gbps non-blocking switching fabric
- 17.8 million packet-per-second forwarding rate
- Flexible design for both Gigabit copper and Gigabit fiber connectivity
- 1488000pps forwarding rate for 1000Base-T/1000Base-S connectivity, 148800pps forwarding rate for 100Base-Tx connectivity
- Wire-speed performance

MAC and Packet Buffer

- 16K MAC entries
- 8Mbits packet buffer

Access Control List

- Wire speed filtering per MAC/IP/TCP/UDP
- Wire speed rate limiting per MAC/IP/TCP/UDP
- Wire speed mirroring per MAC/IP/TCP/UDP

Traffic Management and QoS

- IEEE 802.1p
- 8 egress queues per port for different types of traffic
- WFQ (Weighted Fair Queue) scheduling for different prioritization of packets
- Strict priority queuing for highest priority packets to get best service
- IEEE 802.1Q tag-based and port-based VLAN
- 256 static VLAN, up to 4K dynamic VLAN
- Support GVRP, automatic VLAN member registration
- Supports jumbo frame, up to 9K Bytes
- Supports IGMP snooping
- Congestion control on all ports

Rate Limiting

- Allow bandwidth to be shaped in steps at 1Mbps
- Rate limiting based on combination of L2/L3/L4 fields using ACL

Link Aggregation

- IEEE 802.3ad compliant
- Support LACP, static and dynamic link aggregation
- Up to 6 aggregation groups
- 8 ports per group randomly selected

Redundancy for Fault Backup

- IEEE802.1w Rapid Spanning Tree Protocol (RSTP)(provides rapid convergence of spanning tree independent of spanning-tree timer)
- Supports ZyXEL Backup Power System (BPS) (that provides internal power source redundancy, improve fault tolerance)

User Security and Authentication

- MAC filtering per port secures access to each port
- Specific MAC forwarding per port: only specified MAC addresses can access the network (port lock)
- Limit the number of MAC address per port
- 802.1x port-based security, prevent unauthorized client access to the network
- Private VLAN provides security and isolation between ports on a switch, ensures that users can not snoop on each other's traffic

Network Administration Security

- User name/password required for web/telnet/local console administrators
- Two level security by specific SNMP read/write community
- SSH provides network security by encrypting administration traffic (*)

Network Management

- Supports ZyXEL iStacking™, up to 24 switches can be managed by one IP
- Web-based management
- Telnet CLI
- SNMP v2c
- RS-232c Local console
- IP management: static IP or DHCP client

** For future release*

Model Description

Dimension GS-3012	12-port Managed Layer 2 Gigabit Ethernet Switch with 4 Shared Mini-GBIC Slots
AC	Layer 2 Gigabit Ethernet switch, 12 RJ-45, 4 shared SFP bays, AC power input
DC	Layer 2 Gigabit Ethernet switch, 12 RJ-45, 4 shared SFP bays, DC power input
Dimension GS-3012F	12-port Managed Layer 2 Gigabit Fiber Ethernet Switch
AC	Layer 2 Gigabit Ethernet switch, 12 SFP bays, 4 shared RJ-45, AC power input
DC	Layer 2 Gigabit Ethernet switch, 12 SFP bays, 4 shared RJ-45, DC power input

ZyXEL

Dimension GS-3012/GS-3012F

12-port Managed Layer 2 Gigabit Ethernet Switch

Specifications

GS-3012

Hardware Specification

- 12 100/1000Base-T, auto-negotiation and cross-over
- 4 SFP bays
- 1 console port, D-Sub 9 pin Female (DCE)
- 1 out-of-band management port, RJ-45
- 1 BPS connector for optional power backup

Physical Specification

- Dimensions: 440(L) x 300(D) x 45(H) mm
- Weight: 4Kg

Power Requirement

Power supply

- Input voltage of AC: 100-240VAC, 50/60Hz
- Max power rating of AC: 50 Watt
- Input voltage of DC: -48VDC ~ -60VDC
- Max power rating of DC: 40 Watt

Operation Environment

- Operating temperature: 0 ~ 45°C
- Storage temperature: -25 ~ 70°C
- Operating humidity: 10% ~ 90%, non-condensing

MTBF: 233940 hrs

GS-3012F

Hardware Specification

- 4 100/1000Base-T, auto-negotiation and cross-over
- 12 SFP bays
- 1 console port, D-Sub 9 pin Female (DCE)
- 1 out-of-band management port, RJ-45
- 1 BPS connector for optional power backup

Physical Specification

- Dimensions: 440(L) x 225(D) x 45 (H) mm
- Weight: 3.1Kg

Power Requirement

Power supply

- Input voltage of AC: 100-240VAC, 50/60Hz
- Max power rating of AC: 36 Watt
- Input voltage of DC: -48VDC ~ -60VDC
- Max power rating of DC: 30 Watt

Operation Environment

- Operating temperature: 0 ~ 45°C
- Storage temperature: -25 ~ 70°C
- Operating humidity: 10% ~ 90%, non-condensing

MTBF: 349706 hrs

Accessories

SFP Selection

- SFP-SX (Multi-mode, distance: 550m, wavelength: 850nm)
- SFP-LX-10 (Single-mode, distance: 10Km, wavelength: 1,310nm)
- SFP-LHX1310-40 (Single-mode, distance: 40Km, wavelength: 1,310nm)
- SFP-ZX-80 (Single-mode, distance: 80Km, wavelength: 1,550nm)

ZyXEL Backup Power System*

- BPS-120

** For future release*

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